

bengalensis. This is the first record of *S. insignis* for northeastern India and the state of Assam.

S. insignis, though similar in appearance to *S. torquata*, can be distinguished from the latter by its bigger size, larger white wing-patch and white throat *contra* black; in the males the black of the head tapers to a very thin black line on the nape in *insignis*, whereas the whole breadth of the nape in *torquata* is black. With a little practice we were able to tell even the females of the two species apart. They kept singly or in loose pairs, perching on the top of low (*c.* 75 - 150 cm) grass or shrubs and often going to the ground to feed. The same patch of grassland was occupied by them for days and they defended these small territories by chasing away any intruding *torquata*. Photographs of these birds were taken.

In 1986, the last bird was seen on 24th April, which is a wintering time extension for *S. insignis* in India as Ali and Ripley (1982) have recorded 10th April as the previous last date. In 1987, the first bird was seen on 28th February in the same area and they remained there till the fourth week of April. However, in 1988, we did

not see the birds in that area till the third week of April when a few were also seen in similar grasslands at Kapurpora on the Manas river. In 1989 too, they were first sighted in April and disappeared within a couple of weeks. Since the bird is quite rare, it is possible that we could have missed some individuals wintering in areas not frequented by us in the last two seasons.

Our sightings indicate that *S. insignis* are passage migrants through Manas Wildlife Sanctuary on their way back to the breeding grounds. Unlike *S. torquata*, they do not appear here in September-October. However, a few individuals stay in Manas between end February and April during the spring migration.

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21. HERPETOFAUNA OF PHULWARI KI NAL WILDLIFE SANCTUARY, RAJASTHAN STATE

Phulwari Ki Nal Wildlife Sanctuary is situated in Udaipur district at the southernmost end of the state. The flora of the sanctuary is mainly deciduous. Phulwari ki Nal is among the lesser known sanctuaries of India, but it is rich in floral and faunal diversity. Except for Sharma (1995), we have little knowledge about the herpetofauna of this sanctuary. McCann (1946) has recorded nearly 17 reptilian species from Mt. Abu, Phulwari ki Nal. In the present paper, the reptiles seen from 1986 to August 1995 in this sanctuary are listed below:

Family: CROCODYLIDAE

(1) *Crocodylus palustris* Lesson: Once very common in the Mansi-Wakal river, the main and principal river of the sanctuary, now rare.

During rainy season, it sometimes becomes visible in the receding water. At present their nearest known habitat is Jhadol Dam. Perhaps they also breed there. I saw three in and around the sanctuary area from July 1993 to July 1995.

Family: EMYDIDAE

(2) *Kachuga tecta* (Gray): Seen in the Mansi-Wakal river. Very common in lakes of the district. It likes to sit on emergent outcrops specially during winter.

Family TRIONYCHIDAE

(3) *Lissemys punctata* Lacepede: Uncommon, seen in wells and ponds. Flesh is consumed by tribals for treatment of tuberculosis.

Family: TESTUDINIDAE

(4) *Geochelone elegans* (Schoeff): Common, locally called 'Bhumi-kachba'. Kept as a pet by many tribal families.

Family: GEKKONIDAE

(5) *Hemidactylus flaviviridis* Ruppell: Common. Locally called 'Vishamra'. Can be seen on outer walls of the tribal houses after sunset. Sometimes seen in crags also.

(6) *H. brooki* Gray: Common.

(7) *Eublepharis macularis* Blyth: A specimen was collected from the outskirts of the sanctuary.

Family: AGAMIDAE

(8) *Calotes versicolor* (Daudin): Very common, locally called 'kangetia'. Heavy casualties are seen on the road during rainy season as many are run over by vehicles. Its flesh is applied on toe injuries by natives.

(9) *Sitana ponticeriana* Cuvier: Common, specially confined in open pockets. This species is a fast runner on ground. Besides many males, a gravid female was recorded during August 1994.

Family: CHAMAELEONIDAE

(10) *Chamaeleon zeylanicus* Laurenti: Common, locally known as 'Halanviya'. Natives kill it whenever seen, as they believe it can cause leprosy by licking.

Family: SCINCIDAE

(11) *Mabuya carinata* (Schneider): Common, amongst the fallen dry leaves of *Madhuca indica*. Usually found on forest floor, fields and near tribal hutments. Locally called 'Nagarbamni' i.e. female of head 'brahmin', and hence protected by the people.

(12) *Ophisops jerdoni* Blyth: Very common in hilly area, prefers flat hill tops. It lives beneath fallen dry leaves of *Madhuca indica*. During winter generally seen from 11 am to 2 pm outside its hide-out, moving on forest floor amongst the ground flora. Common in the upper reaches of Madri R.F. and Som Ist R.F.

which are at the outskirts of the sanctuary and are rich in this species.

Family VARANIDAE

(13) *Varanus bengalensis* (Schneider): Very common. Bagged by *jogis* (mendicants) for fat extraction during rainy season. Most adults are infested by a tick *Aponomma gervoisii* (Lucas). The sub-adults of *Varanus* are known as 'Chandan-goh' in the area and people consider them more 'venomous' than any snake and hence kill them.

Family: TYPHLOPIDAE

(14) *Ramphotyphlops bramina* (Daudin): Common, seen under logs, stones, and moist soil. Locally called 'kana'.

(15) *Typhlina acutus* (Dum & Bibr.): One specimen was collected from a water tank into which it had fallen during the night.

Family: BOIDAE

(16) *Python molurus* (Linnaeus): Commonly occur along the banks of the Mansi-Wakal river. One female incubating eggs was observed at 'Bolna Parda' hill near 'Birothi' area. Locally called 'Agar' or 'Ajar'. Since the trident-like mark on the head symbolizes the trident of Lord Shiva, the snake is protected by local people.

(17) *Eryx conicus* (Schneider): Common. Because it looks similar to the saw-scaled viper, it is considered venomous and killed.

(18) *E. johnii* (Russell): Locally called by many names like 'Dhanrai', 'Andhboga', 'Dumbi' etc. One adult specimen was collected from Panarwa-kotra road. Two trampled sub-adults were collected on the road after monsoon rains of 1994 at the outskirts of sanctuary.

Family: COLUBRIDAE

(19) *Lycodon aulicus* (Linnaeus): Common.

(20) *L. striatus* (Shaw): Uncommon.

(21) *Oligodon taeniolatus* (Jerdon): Three collected under stones and a fourth was found trampled on Panarwa-Kotra Road.

(22) *O. arnensis* (Shaw): Two specimens were observed under stones from two different sites.

(23) *Amphiesma stolata* (Linn.): Very common. A mating pair was observed on 2nd July, 1994, on a foot-path.

(24) *Macropisthodon plumbicolor* (Schneider): Very common. Hatchlings appear in rainy season. It is very common in forest nurseries and lives beneath poly-bags containing seedlings.

(25) *Xenochrophis piscator* (Schneider): Very common, locally called 'Dindu' by bhils, and 'Diwad' by kathodies. During fish catching operation with specially made bamboo baskets, this species of snake is also trapped along with fishes by tribals. It is present in almost all the wells, nullahs, ponds, dams etc. of the area.

(26) *Elaphe helena* (Daudin): Common.

(27) *Ptyas mucosus* (Linn.): Uncommon.

(28) *Dendrelaphis tristis* (Daudin): Common. During summer it is seen on medium sized *Acacia leucophloea* trees. Frequent in areas having vegetation in crown contact or crown overlapping stages. One was seen hibernating in a hole near a wooden post on the verandah of a house.

(29) *Psammophis leithi* Gunther: One specimen was collected from a bush.

(30) *Ahaetulla nasutus* (Lacepeda): Collected one from Dharawan Reserve Forest.

(31) *Boiga trigonata* (Schneider): Common. *B. forstenii* (Dum. & Bibr.) though recorded in the Mt. Abu area by McCann (1946)

was not seen in Phulwari ki Nal.

Family: ELAPIDAE

(32) *Bungarus caeruleus* (Schneider): Common.

(33) *Naja naja* (Linn.): Locally called 'Nagin', 'Gogaji', 'Kala Hamp' (samp) ('s' is pronounced as 'h' by natives). It is a sacred and protected snake in the area. Nomadic *kalbelias* used to display it in cities and rural areas to earn a living.

Family: VIPERIDAE

(34) *Vipera russelli* (Shaw): Uncommon.

(35) *Echis carinatus* (Schneider): Very common, locally called 'Kankariwala'. It prefers open rocky areas.

SUMMARY: 35 species of reptiles containing 30 genera belonging to 17 families have been recorded from Phulwari Ki Nal Wildlife Sanctuary. After taking measurements, animals were released at the same site at which they were captured.

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22. REPTILES OF PERIYAR TIGER RESERVE, KERALA

Forty-five species of reptiles including two species of testudines, (in two families) 13 species of lizards (in 4 families) and 30 species of snakes

(in 5 families) have been recorded in Periyar Tiger Reserve. Seven species of lizard and 26 species of snakes have been collected, of which